

REMARKS

Claims 1 and 3-10 are pending in this application. Claim 2 has been cancelled in a previous response.

Objection to Claim 4

Claim 4 is objected to because of certain informalities. Claim 4 has been amended to in accordance with the comments in the Office Action to correct a typographical error. No new matter is added by this amendment. Thus, it is respectfully submitted that the objection to claim 4 is now moot and should be withdrawn.

Rejection of Claims 1, 6-8 and 10 under 35 U.S.C. 103(a)

Claims 1, 6-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paul E. Green ("Analyzing Multivariate Data," The Dryden Press, 1978, pages 427-428) in view of Pena (Pattern Recognition Letter 20, pp. 1027-1040) and further in view of Vailaya (Technical Report MSU-CPS-96-64) and further in view of Jain et al. ("Algorithms for Clustering Data," Prentice Hall, 1988, pages 96-101), hereafter referenced as Green, Pena, Vailaya and Jain, respectively.

"The failure of an asserted combination to teach or suggest each and every feature of a claim remains fatal to an obviousness rejection under 35 U.S.C. § 103. Section 2143.03 of the MPEP requires the "consideration" of every claim feature in an obviousness determination. To render a claim unpatentable, however, the Office must do more than merely "consider" each and every feature for this claim. Instead, the asserted combination of the patents must also teach or suggest *each and every claim feature*. See *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974) (emphasis added) (to establish *prima facie* obviousness of a claimed invention, all the claim features must be taught or suggested by the prior art). Indeed, as the Board of Patent Appeal and Interferences has recently confirmed, a proper obviousness determination requires that an Examiner make "a searching comparison of the claimed invention - *including all its limitations* - with the teaching of the prior art." See *In re Wada and Murphy*, Appeal 2007-3733, citing *In re Ochiai*, 71 F.3d 1565, 1572 (Fed.

Cir. 1995) (emphasis in original). “If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious” (MPEP §2143.03, citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)).”

The present claimed arrangement provides a method of selecting seeds from a set of key images of a video sequence for the grouping of key images of prevalent shots of the video sequence for use in interactive navigation of the video sequence. A number of p candidates are randomly drawn from the set of key images by automatically extracting shots of interest. The p candidates are calculated to increase the probability of drawing a key image of a prevalent shot. The cost C for each candidate is calculated, dependent on the distance from the key images of the set to that of the candidate, the distance relating to signatures. The candidate minimizing the cost C is selected. A subset from among the set of key images is determined such that the key images forming the subset have a distance from the candidate less than a threshold T. A seed from among the key images of the subset is determined such that it minimizes the cost function C for this subset. The key images of the subset are deleted to form a new set of key images for at least one new random draw and determination of a new seed according to the aforementioned steps in order to refine the grouping of key images to those of interest for the interactive navigation of the video sequence.

Green describes clustering algorithms for clustering profiles. Dimensionalizing the proximity matrix, non-hierarchical methods, and hierarchical methods of clustering are discussed. (See pages 427-428) Green (sequential threshold) also describes a clustering algorithm selecting a cluster center and grouping objects close to this center, then selecting a new cluster center among points not belonging to the previously calculated clusters.

However, as conceded in the Office Action, Green, neither teaches nor suggests “a method for use in interactive navigation of the video sequence comprising: random drawing of p from the set of key images by automatically extracting shots of interest, p being calculated in such a way as to obtain a very good probability of drawing a key image of a prevalent shot, calculation of the cost C for each candidate, dependent on the distance from

the key images of the set to that of the candidate, the distance relating to signatures, and selection of the candidate minimizing the cost C; determination of a seed from among the key images of the subset such that it minimizes the cost function C for this subset” as recited in claim 1 of the present arrangement. Green consists in selecting a cluster center and determining the cluster around this center. Specifically, “a cluster center is selected and all objects within a prespecified threshold value are grouped. Then a new cluster center is selected and the process is repeated for the unclustered points.” (See page 428) Green describes that iterations eliminating the objects of the previous cluster are necessary to calculate a new cluster. However, Green does not specify the manner in which the cluster centers are selected. Applying the method of Green to the present claimed arrangement would mean k1 are the cluster centers and lk are the clusters. That is not the case. As claimed in claim 1, k1 and lk are “temporary” clusters which are only calculated for the determination of the cluster centers k2 to be used for the actual clustering, the one described in Green.

Green does not disclose or suggest determining a seed from among the objects of the subset. In contrast, the present claimed arrangement provides for “determination of a subset from among the set of key images such that the key images forming the subset have a distance from the candidate less than a threshold T.” Selecting a specific subset in order to facilitate selecting seeds from images as in the present claimed arrangement facilitates optimal partitioning of a processed video sequence. Thus, Green also neither teaches nor suggests “determination of a subset from among the set of key images such that the key images forming the subset have a distance from the candidate less than a threshold T” as recited in claim 1 of the present arrangement.

Pena discloses four initialization methods for the K-Means algorithm, based on the choice of K instances by random. The calculation of the clusters, for the initialization, is based on clusters obtained from seeds chosen at random from the initial database. Pena was cited to show selecting the most centrally located instance as the first seed in order to initialize the seed.

This is unlike the present claimed arrangement in which the calculation of the clusters, for the initialization, is based on iterations selecting only one candidate among candidates chosen at random and then deleting the cluster corresponding to this candidate, to perform a new drawing by random. In other words, the selection of a cluster center in the present claimed arrangement is not done on the initial data base as in Green or Pena, but on a selected data base (candidates from a data base calculated after deletion of k1 at each iteration).

Among the four methods disclosed by Pena, the one called Kaufman Approach using the pseudo code discloses the selection of the most centrally located as a first seed (fig. 3) or discloses the selection of an initial partition in K clusters which centroids are calculated (fig.1). The selection, as agreed in the Office Action, is made in parallel for K clusters (initial partition of the database in K clusters). According to the Office Action, a sequential method could be used. The applicant respectfully disagrees. Step 3.1 (fig.1) of Pena reassigns instance to another cluster if it is closer to its centroid. Consequently, clusters have to be calculated before reassessments. If they are calculated one after the other, reassignment to another cluster is not possible. The disclosure of this parallel method to get an initial partition, to calculate cluster centroids and reassignment makes the use of iterations, i.e. subsequent cluster calculations, as in the present claimed arrangement not possible (reassignment needs at least to know the centroids and consequently the clusters).

The Office Action concedes that Green and Pena, taken alone or in combination with one another, neither teach nor suggest “a method for use in interactive navigation of the video sequence; by automatically extracting shots of interest, p being calculated in such a way as to obtain a very good probability of drawing a key image of a prevalent shot, calculation of the cost C for each candidate,” as recited in claim 1 of the present arrangement. However, the Office Action asserts that Vailaya describes the aforementioned feature. Applicants respectfully disagree.

Vailaya describes clustering of video images. The issue of efficient and meaningful clustering of keyframes representing shots in the video is addressed. Experiments conducted

with human subjects to identify what categories are used to group images is discussed. It is shown that hierarchical clustering schemes based on ad hoc features cannot identify the semantic categories identified by human subjects. (See Section 3, Proposed Scheme)

Vailaya, taken alone or in combination with Green, Pena and Jain, neither teaches nor suggests “determination of a subset from among the set of key images such that the key images forming the subset have a distance from the candidate less than a threshold T” and “determination of a seed from among the key images of the subset such that it minimizes the cost function C for this subset” as recited in claim 1 of the present arrangement. Vailaya is silent regarding the aforementioned features. In addition, Vailaya only generally shows, through experiments that hierarchical clustering schemes using ad hoc features cannot identify certain categories identified by human subjects. However, this is not the aim of the present claimed arrangement.

The Office Action further concedes that Green, Pena and Vailaya, taken alone or in any combination with one another, neither teach nor suggest “determination of a seed from among the key images of the subset such that it minimizes the cost function C for this subset” as recited in claim 1 of the present arrangement. However, the Office Action asserts that Jain describes the aforementioned feature. Applicants respectfully disagree.

Jain describes an algorithm for iterative partitional clustering. An initial partition with K clusters is selected. A new partition is generated by assigning each pattern to its closest cluster center. Centroids of the clusters are computed as the new cluster centers. Generating partitions and computing new cluster centers is repeated until an optimum value of the criterion function is found. The number of clusters is adjusted by merging and splitting existing clusters or by removing small clusters. (See pages 96-97)

However, Jain neither teaches nor suggests “determination of a seed from among the key images of the subset such that it minimizes the cost function C for this subset” as recited in claim 1 of the present arrangement. Jain proposes an initial partition for the clustering of patterns. Obtaining the initial partition of seeds consists of choosing the K first patterns or

drawing K patterns (page 97). One solution is to draw the seeds and the other solution is to calculate the centroid of the data as a first seed and to select a following seed which is at a distance from the already selected previous seeds. Thus, a set of K seeds is obtained, which provides an initial partition by assigning each pattern to the nearest seed. In contrast, the present claimed arrangement provides for selecting a following seed after eliminating subsets relating to the previously selected seeds. This is performed by “a cost function C” used for determining a seed from among a calculated subset.

Jain is silent regarding the use of a cost function relating to the selection of a candidate used to calculate a subset or used to update a candidate within a calculated subset. Instead, Jain proposes that the centroid is calculated for the entire data, and selecting a first seed that is not updated. Page 97 of Jain indicates that updating a partition is necessary. In contrast, the present claimed arrangement selects seeds in order to obtain a reliable partition, and consequently, allocates key frames as a function of error calculations. Jain calculates multiple initial partitions and checks them to ensure that they lead to the same final partition. This is unlike the present claimed arrangement which provides “determination of a seed (k2) from among the key images of the subset such that it minimizes the cost function C for this subset.” This results in increased reliability, by selecting candidates at a minimum cost and updating the selected candidate among all key images of the subset. Thus, Jain, like Green, Pena and Vailaya neither teaches nor suggests “determination of a seed from among the key images of the subset such that it minimizes the cost function C for this subset” as recited in claim 1 of the present arrangement.

Unlike the present claimed arrangement, none of the cited documents disclose the use of a cost function to select a candidate k1 among drawn candidates and to calculate the seed from a “temporary” cluster, in order to implement the actual clustering. The present claimed process relates to the selection of seeds to allow obtaining of a reliable partition, consequently not needing reallocation of key frames as a function of error calculations. Local minima issue is resolved in this prior art in calculating multiple initial partitions and checking that they lead to the same final partition (see initial partition in Jain, page 97). The present claimed arrangement allows avoiding such drawback by increasing the reliability, by

selecting a candidate having a minimum cost, among p candidates of a set, this set not including the subsets relating to previously selected seeds and by updating the selected candidate having a minimum cost among all the key images of the subset.

The combination of Green, Pena, Vailaya and Jain, similar to the individual systems, neither teaches nor suggests “determination of a seed from among the key images of the subset such that it minimizes the cost function C for this subset” and “determination of a subset from among the set of key images such that the key images forming the subset have a distance from the candidate less than a threshold T” as recited in claim 1 of the present arrangement. A combination of Green, Pena, Vailaya and Jain would result in a system that calculates clusters based on clusters obtained from seeds chosen at random using a clustering algorithm selecting a cluster center and grouping objects close to the center. Computation of new cluster centers among points not belonging to the previously calculated clusters is repeated until an optimum value of the criterion function is found. The present claimed arrangement instead allows for the selection of a candidate from among several candidates, by using a cost function to select a first subset. An update of the selected candidate using the cost function is used to further facilitate optimal partitioning of video frames. Specifically, “determination of a subset from among the set of key images” facilitates “determination of a seed from among the key images ... such that it minimizes the cost function C for this subset.” Thus, the combination of Green, Pena, Vailaya and Jain, similar to the individual systems, neither teaches nor suggests “determination of a subset from among the set of key images such that the key images forming the subset have a distance from the candidate less than a threshold T” and “determination of a seed from among the key images of the subset such that it minimizes the cost function C for this subset” as recited in claim 1 of the present arrangement. Since the combination of references doesn’t teach or suggest all of the claimed limitations, applicants submit that a valid *prima facie* rejection of claim 1 has not been put forth and that the improper should be withdrawn.

Claim 6 is dependent on claim 1 and patentable for the same reasons as claim 1, discussed above. The Office Action asserts that Vailaya describes “the sequence being split into shots, a shot being represented by one or more key images, at least one signature or

attribute being calculated for the key images” as recited in claim 6. Applicant respectfully disagrees. Aside from citing a general block diagram describing a “general problem of video clustering (Section 1.3, Problem Definition), Vailaya does not teach or suggest the features of claim 6. Figure 1, cited by the Office Action only describes the steps taken in order to cluster shots. However, there is no teaching or suggestion of sequences “split into shots, a shot represented by one or more key images” or signature attributes “calculated for the key images.” Thus, Vailaya neither teaches nor suggests the sequence being split into shots, a shot being represented by one or more key images, at least one signature or attribute being calculated for the key images” as recited in claim 6 of the present arrangement. Therefore, since the combination of references doesn’t teach or suggest all of the claimed limitations, applicants submit that a valid *prima facie* rejection of claim 6 has not been put forth and that the improper rejection should be withdrawn.

Additionally, Claims 6-8 and 10 are dependent on claim 1 and are considered patentable for the reasons set forth above regarding claim 1. Therefore, it is respectfully submitted that the rejection of claims 6-8 and 10 is improper and should be withdrawn.

Rejection of Claim 3 under 35 U.S.C. 103(a)

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Green, Pena, Vailaya and Jain (hereinafter “GPVJ”) in view of Palmer (“Density Biased Sampling: An Improved Method for Data Mining and Clustering,” Proceedings of ACM SIGMOD International Conference on Management of Data, 2000), hereafter referenced as GPVJ and Palmer.

Claim 3 is dependent on claim 1 and is considered patentable for the reasons set forth above regarding claim 1. Claim 3 specifies the weight of a key image depends on the length of the shot it characterizes. Consequently, there are more chances to draw a key image representing a longer shot.

Palmer describes density biased sampling in order to probabilistically under-sample dense regions and over-sample light regions of data for data mining. A memory efficient

algorithm is proposed that approximates density biased sampling using only a single scan of the data. (See Abstract)

Palmer discloses a weighting function of the sampling points: the sample is biased by group size. The group size corresponds to the number of samples within the cluster. There is no relation between the length of a shot relating to a key image and the number of key images within the cluster and consequently Palmer doesn't disclose or suggest the characteristics of claim 3.

Palmer, taken alone or in combination with GPVJ, neither teaches nor suggests "determination of a subset from among the set of key images such that the key images forming the subset have a distance from the candidate less than a threshold T" and "determination of a seed from among the key images of the subset such that it minimizes the cost function C for this subset" as recited in claim 1 of the present arrangement. Palmer only describes approximation of a density biased sampling by using a single scan of data. Palmer is silent regarding determination of a subset from a set of key images and determining a seed to minimize a cost function of the subset.

A combination of GPVJ and Palmer would result in a system that calculates clusters based on clusters obtained from seeds chosen at random using a clustering algorithm selecting a cluster center and grouping objects close to the center. Computation of new cluster centers among points not belonging to the previously calculated clusters is repeated until an optimum value of the criterion function is found. Additionally, this process would be preformed with a single scan of the data. However, the present claimed arrangement allows for the selection of a candidate from among several candidates, by using a cost function to calculate a first subset. This is neither taught nor suggested by the combination. An update of the selected candidate using the cost function is used to further facilitate optimal partitioning of video frames. Specifically, "determination of a subset from among the set of key images" facilitates "determination of a seed from among the key images ... such that it minimizes the cost function C for this subset." In addition, performing the process with a single scan of data is contradictory to the purpose of the present claimed arrangement, which

uses an iterative process in order to “refine the grouping of key images” as recited in claim 1 of the present arrangement. Thus, the combination of GPVJ and Palmer, similar to the individual systems, neither teaches nor suggests “determination of a subset from among the set of key images such that the key images forming the subset have a distance from the candidate less than a threshold T” and “determination of a seed from among the key images of the subset such that it minimizes the cost function C for this subset” as recited in claim 1 of the present arrangement. Since the combination of references doesn’t teach or suggest all of the claimed limitations, applicants submit that a valid *prima facie* rejection of claim 3 has not been put forth and that the improper rejection should be withdrawn.

Additionally, claim 3 is dependent on claim 1 and is considered patentable for the reasons set forth above regarding claim 1. Therefore, it is respectfully submitted that the rejection of claim 3 is improper and should be withdrawn.

Rejection of Claim 4 under 35 U.S.C. 103(a)

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over GPVJ in view of Foote (US Patent 6,774,917).

Claim 4 is dependent on claim 1 and is considered patentable for the reasons set forth above regarding claim 1.

Foote describes a system for interactively browsing, querying, and retrieving video by similarity. Interactively selected video regions are used to train statistical models on the fly. Query training segments are individual frames, segments of frames, non-contiguous segments, or collections of images. The system can also be used to retrieve similar images from one or more still images. Similarity measures are based on statistical likelihood of the reduced transform coefficients. The similarity is rapidly calculated, graphically displayed and used as indexes for interactively locating similar video regions. (See col. 2, lines 53-63)

Foote, taken alone or in combination with GPVJ, neither teaches nor suggests “determination of a subset from among the set of key images such that the key images

forming the subset have a distance from the candidate less than a threshold T" and "determination of a seed from among the key images of the subset such that it minimizes the cost function C for this subset" as recited in claim 1 of the present arrangement. Foote is silent regarding the aforementioned features.

A combination of GPVJ and Foote would result in a system that calculates clusters based on clusters obtained from seeds chosen at random using a clustering algorithm selecting a cluster center and grouping objects close to the center. Computation of new cluster centers among points not belonging to the previously calculated clusters is repeated until an optimum value of the criterion function is found. Additionally, the combination would include a feature for using specific cluster points to train statistical models resulting in graphically displayed indexes for similar video regions. However, the present claimed arrangement allows for the selection of a candidate from among several candidates, by using a cost function to calculate a first subset. This is neither taught nor suggested by the combination. An update of the selected candidate using the cost function is used to further facilitate optimal partitioning of video frames. Specifically, "determination of a subset from among the set of key images" facilitates "determination of a seed from among the key images ... such that it minimizes the cost function C for this subset." Thus, the combination of GPVJ and Foote, similar to the individual systems, neither teaches nor suggests "determination of a subset from among the set of key images such that the key images forming the subset have a distance from the candidate less than a threshold T" and "determination of a seed from among the key images of the subset such that it minimizes the cost function C for this subset" as recited in claim 1 of the present arrangement. Since the combination of references doesn't teach or suggest all of the claimed limitations, applicants submit that a valid *prima facie* rejection of claim 3 has not been put forth and that the improper rejection should be withdrawn.

Additionally, claim 4 is dependent on claim 1 and is considered patentable for the reasons set forth above regarding claim 1. Therefore, it is respectfully submitted that the rejection of claim 4 is improper and should be withdrawn.

Rejection of Claim 5 under 35 U.S.C. 103(a)

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over GPVJ in view of Wan et al. ("A multiresolution color clustering approach to image indexing and retrieval," Proceedings of 1998 IEEE International Conference, pages 3705-3708).

Claim 5 is dependent on claim 1 and is considered patentable for the reasons set forth above regarding claim 1.

Wan describes a multiresolution color feature extraction scheme based on octree data structure to achieve efficient and robust image retrieval. With the proposed method, multiple color features, including the dominant color, the number of distinctive colors and the color histogram, can be naturally integrated into one framework. A selective filtering strategy is also described. (See Abstract)

Wan, taken alone or in combination with GPVJ, neither teaches nor suggests "determination of a subset from among the set of key images such that the key images forming the subset have a distance from the candidate less than a threshold T" and "determination of a seed from among the key images of the subset such that it minimizes the cost function C for this subset" as recited in claim 1 of the present arrangement. Wan is silent regarding the aforementioned features. In addition, Wan only describes selective filtering of colors and not the determination of subsets and a seed among the subset to minimize a cost function.

A combination of GPVJ and Wan would result in a system that calculates clusters based on clusters obtained from seeds chosen at random using a clustering algorithm selecting a cluster center and grouping objects close to the center. Computation of new cluster centers among points not belonging to the previously calculated clusters is repeated until an optimum value of the criterion function is found. In addition, the combination is able to selectively filter certain colors and retrieve features based on color extraction. However, this is unlike the present claimed arrangement because the present claimed arrangement allows for the selection of a candidate from among several candidates, by using a cost

function to calculate a first subset. This is neither taught nor suggested by the combination. In the present claimed arrangement, an update of the selected candidate using the cost function is used to further facilitate optimal partitioning of video frames. Specifically, “determination of a subset from among the set of key images” facilitates “determination of a seed from among the key images ... such that it minimizes the cost function C for this subset.” Thus, the combination of GPVJ and Wan, similar to the individual systems, neither teaches nor suggests “determination of a subset (lk) from among the set of key images such that the key images forming the subset have a distance from the candidate less than a threshold T” and “determination of a seed (k2) from among the key images of the subset (lk) such that it minimizes the cost function C for this subset” as recited in claim 1 of the present arrangement. Since the combination of references doesn’t teach or suggest all of the claimed limitations, applicants submit that a valid *prima facie* rejection of claim 5 has not been put forth and that the improper rejection should be withdrawn.

Additionally, claim 5 is dependent on claim 1 and is considered patentable for the reasons set forth above regarding claim 1. Therefore, it is respectfully submitted that the rejection of claim 5 is improper and should be withdrawn.

Rejection of Claim 9 under 35 U.S.C. 103(a)

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over GPVJ in view of Turi et al. (“K-means Clustering for Colour Image Segmentation with Detection of K,” Proceedings of the LASTED International Conference Signal and Image Processing, Oct. 27-31, 1998, pages 345-349).

Claim 9 is dependent on claim 1 and is considered patentable for the reasons set forth above regarding claim 1.

Turi describes a clustering-based segmentation technique developed for color images. The number of clusters is automatically detected. Each of the pixels belonging to a particular cluster must be as close to their cluster center as possible. A K-means algorithm is used as a starting point. (See page 345)

Turi, taken alone or in combination with GPVJ, neither teaches nor suggests “determination of a subset from among the set of key images such that the key images forming the subset have a distance from the candidate less than a threshold T” and “determination of a seed from among the key images of the subset such that it minimizes the cost function C for this subset” as recited in claim 1 of the present arrangement. Turi is silent regarding the aforementioned features. Turi describes the use of a K-means algorithm to implement cluster based segmentation for color images. However, Turi does not describe the use of a cost function or determining a subset of a set of key images.

A combination of GPVJ and Turi would result in a system that calculates clusters based on clusters obtained from seeds chosen at random using a clustering algorithm selecting a cluster center and grouping objects close to the center. Computation of new cluster centers among points not belonging to the previously calculated clusters is repeated until an optimum value of the criterion function is found. A combination with Turi adds the use of cluster based segmentation for color images. However, the combination is still not the same as the present claimed arrangement allows for the selection of a candidate from among several candidates, by using a cost function to calculate a first upset. An update of the selected candidate using the cost function is used to further facilitate optimal partitioning of video frames. Specifically, “determination of a subset from among the set of key images” facilitates “determination of a seed from among the key images ... such that it minimizes the cost function C for this subset.” Thus, the combination of GPVJ and Turi, similar to the individual systems, neither teaches nor suggests “determination of a subset from among the set of key images such that the key images forming the subset have a distance from the candidate less than a threshold T” and “determination of a seed from among the key images of the subset such that it minimizes the cost function C for this subset” as recited in claim 1 of the present arrangement. Since the combination of references doesn’t teach or suggest all of the claimed limitations, applicants submit that a valid *prima facie* rejection of claim 9 has not been put forth and that the improper rejection should be withdrawn.

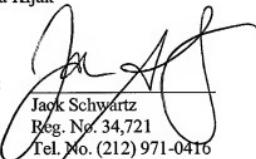
Additionally, claim 9 is dependent on claim 1 and is considered patentable for the reasons set forth above regarding claim 1. Therefore, it is respectfully submitted that the rejection of claim 9 is improper and should be withdrawn.

Having fully addressed the Examiner's rejections, it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicant's attorney so that a mutually convenient date and time for a telephonic interview may be scheduled.

The required fee of one hundred thirty dollars (\$130.00) for extending the time for a response within the first month after the original response date, pursuant to 37 CFR 1.17(a)(1) should be charged to Deposit Account 07-0832 as stated above. Should any other fee be due, please charge it to Deposit Account 07-0832.

Respectfully submitted,
Ewa Kijak

By:


Jack Schwartz
Reg. No. 34,721
Tel. No. (212) 971-0416

Thomson Licensing, LLC
Patent Operations
PO Box 5312
Princeton, NJ 08543-5312
July 1, 2010